

Title (en)  
METAL-ION CHELATES WITH ACIDIC SACCHARIDES AND GLYCOSAMINOGLYCANS

Title (de)  
METALL-ION CHELATE MIT SAÜRE SACCHARIDEN UND GLYKOSEAMINOGLYKANEN

Title (fr)  
CHELATES D'IONS DE METAUX AVEC DES SACCHARIDES ET GLYCOSAMINOGLYCANES ACIDES

Publication  
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Application  
**EP 95903644 A 19941129**

Priority  
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Abstract (en)  
[origin: WO9514491A2] This application concerns novel agents comprising cationic or chemically basic metal chelators in association with hydrophilic carriers of anionic or chemically acidic saccharides, sulfatoids and glycosaminoglycans. In certain embodiments, the agents comprise metals and metal ions. Covalent and non-covalent chemical and physical means are described for stabilizing the binding of the metal chelators to the carriers. Novel non-covalently bound compositions are described which give uniquely high payloads and ratio of metal chelator to carrier, ranging from a low of about 15 % metal chelator by weight, to a characteristic range of 70 % to 90 % metal chelator by weight. Specific embodiments are described comprising deferoxamine, ferrioxamine, iron-basic porphine, iron-triethylenetetraamine, gadolinium DTPA-lysine, gadolinium DOTA-lysine and gadolinium with basic derivatives of porphyrins, porphines, expanded porphyrins, texaphyrins and sapphyrins as the basic or cationic metal chelators, which are in turn, bound to acidic or anionic carriers, including one or more of acidic or anionic saccharides, and including sulfated sucrose, pentosan polysulfate, dermatan sulfate, essentially purified dermatan sulfate with a sulfur content of up to 9 % and with selective oligosaccharide oversulfation, chondroitin sulfate, oversulfated chondroitin sulfate, heparan sulfate, beef heparin, porcine heparin, non-anticoagulant heparins, and other native and modified acidic saccharides and glycosaminoglycans. Also disclosed are methods of enhancing in vivo images arising from induced magnetic resonance signals, methods of enhancing in vivo images in conjunction with ultrasound or X-rays.

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